



IS CRYPTOCURRENCY SAFE HEAVEN: EVIDENCE FROM RUSSIA AND UKRAINE WAR

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ABSTRACT

The ongoing crisis of Russia and Ukraine is a global concern and its impact on the world economy is evident. Every industry is suffering from this global disease (Geo-political unrest between Russia and Ukraine) even financial markets. In this study, we intend to determine the impact of this war and whether it is safe to invest in Cryptocurrency after the strike of the Russia and Ukraine war. This study utilizes secondary data from verified sites and the Multiple Regression Model to meet the purpose. The result of this study reveals that this war had a detrimental impact on the crypto market initially. Gold Price Index (GPI), Share Market Index (SMI), and US Interest Rate (USIR) have a significant impact on the price of cryptocurrency (Bitcoin, Ethereum, Litecoin, and Ripple). Moreover, the result reveals that the price of cryptocurrencies e.g. Bitcoin, Litecoin, and Ethereum experienced a fall in price at the very beginning of the war that during any man-made catastrophe, digital currencies are not safe to invest in, but it is predicted that the value of these currencies will increase except XRP in the following year having a fluctuation. The currency market is undergoing significant changes making financial products a crucial stepping stone for investors and policymakers, highlighting the need to consider man-made catastrophes when investing in financial products.

Keywords: Cryptocurrency, financial markets, food and energy supply, Russia-Ukraine war

INTRODUCTION

The world is currently grappling with the lingering effects of the COVID-19 pandemic, exacerbated by the geopolitical tensions between Russia and Ukraine (Ozili 2022). The Russian invasion of Ukraine on February 24, 2022, has resulted in a significant loss of lives, resources, and Property, creating a humanitarian crisis (Jagtap *et al.* 2022). The global economic landscape is adversely affected, particularly in sectors such as power supply, food supply, finance, and trade. The EU faces challenges as its energy resources from Russia are limited, impacting oil, gas, and solid fuel supplies (Orhan 2022). The unrest has disrupted the global supply chain, affected production, sourcing, processing, and logistics, and created shifts in demand, particularly for countries reliant on Ukrainian imports.

The Russian invasion of Ukraine has led to a fragile global financial scenario, prompting Western nations like the US, the UK, the EU, and Canada to impose extensive economic sanctions on Russia across various sectors, including trade, banking, stock markets, and Forex (Demirgüç-Kunt *et al.* 2021, Yousaf and Yarovaya 2022, and Qureshi *et al.* 2022). In Relation, Russia is leveraging energy supplies as a potent weapon, disrupting Europe and impacting both developed and developing economies. The EU, India, China, Bangladesh, Turkey, Egypt, Indonesia, and Pakistan are major recipients of Ukraine's goods and services, while Russia primarily exports energy resources to China, Europe, the US, and India. The blockade of the Black Sea due to conflict has interrupted the transportation of these suppliers. Consequently, soaring commodity prices have triggered inflation globally, affecting vulnerable economies and learning to balance payments deficits and declining reserves, pushing some nations towards bankruptcy (Zhou *et al.* 2023, Jagtap *et al.* 2022, and Kormych and Malyarenko 2022).

The International Monetary Fund suggests that global economic sanctions and diminishing US dollar acceptability make digital currencies, such as Bitcoin, a potential alternative. Bitcoin dominates the market, while Litecoin is known for accessibility and faster transactions. Ethereum combines payment systems with decentralized programming, while Ripple prioritizes rapid transactions. These cryptocurrencies, with distinct features, are increasingly sought after by investors (Hamayel and Owda 2021, and Angela and Sun 2020).

The Study of Sedrakyan, (2022) on Russia and Ukraine highlights the significant sources of economic apprehension due to geopolitical tensions. The research analyzes direct investment and bilateral trade from 2014 to 2018 and employs gravity models and the Poisson pseudo-maximum likelihood econometric technique. Systematic Reviews using PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) were conducted by Jagtap *et al.*, (2022) to analyze the effects of Russia and Ukraine on global food supply chains, While Allam *et al.* (2022) aimed to understand the impact of the COVID-19 pandemic on energy transition and global Inequality. Adekoya *et al.* (2022) used intra-day data to analyze the connection between oil and financial assets like bitcoin, gold, bonds, dollars, and stocks. Zhou *et al.* (2023) used an under-load cascading failure approach to identify the impact of the Russia-Ukraine conflict on global food and energy security. Adekoya *et al.* (2022) used intra-day data to analyze the connection between oil and financial assets like bitcoin, gold, bonds, dollars, and stocks. Zhou *et al.* (2023) used an under-load cascading failure approach to identify the impact of the Russia-Ukraine conflict on global food and energy security.

The global financial markets are becoming worse which caused several scholars to seek the connection of the Russia and Ukraine war with this situation. Del Lo *et al.* (2022) conducted panel data from 73 and 94 countries to analyze the impact of the Russo-Ukrainian unrest on financial markets and the relationship between the Russia-Ukraine war and global stock market responses. They utilized a cross-sectional analysis against a set of country and bank-specific variables of 100 top European listed banks. Gaio *et al.* (2022) investigated the reaction of stock market efficiency of six advanced countries before and after the Russia-Ukraine conflict. Their study collected data

on the daily stock index from the stock markets of countries such as the United Kingdom, United States (US), France, Spain, Germany, and, Italy. They analyzed market efficiency by the multifractal structure of the series of returns in four periods (COVID-19 outbreak, full series, before and after the conflict). Cryptocurrencies, backed by FinTech like blockchain and DeFi, are gaining popularity due to their security, anonymity, trust, and traceability. Khalfaoui *et al.* (2022) used the Quantile Cross-Spectral model to analyze the relationship between the Russia-Ukraine war and cryptocurrencies, while Theiri *et al.* (2022) assessed the impact of the war on Bitcoin and Ethereum liquidity. Using a Cross-Quantilogram (CQ) approach to high-frequency hourly spot prices dataset from 2nd January 2022 to 17th July 2022, explored the potential of cryptocurrencies such as Bitcoin, Tether, Ether, and Solana in the absence of paper-based currencies, gold, commodities, and stock as an exchange measure during the war.

Our Research study is guided by the question, how does the Russia-Ukraine conflict impact global financial markets, Particularly the cryptocurrency sector? How do geopolitical events affect key financial indicators (GPI, SMI, USIR) influence the valuation and stability of major cryptocurrencies? What are the long-term effects of geopolitical unrest on investment strategies in digital currencies and other financial products, and how can investors adapt to mitigate these risks?

This study has a dual focus. Firstly, it aims to contribute to the scholarly literature by examining the influence of the Russia-Ukraine conflict on digital currencies. Secondly, it seeks to provide practical insights by investigating the safety of investing in cryptocurrencies during volatile geopolitical conditions such as the ongoing conflict between Russia and Ukraine.

METHODOLOGY

This study used secondary sources to analyze the safety of Cryptocurrencies like Bitcoin, Ethereum, Litecoin, and Ripple from January 1st, 2018 to January 1st, 2023¹. It also examines the impact of the war on these digital currencies by analyzing US inflation, US interest rates², gold prices, global energy prices, share market indexes³, and food prices index⁴ from January 2018 to February 2023.

Hypothesis

H₁: The geo-political unrest between Russia and Ukraine has a positive relationship with Bitcoin.

H₂: The geo-political unrest between Russia and Ukraine has a positive relationship with Litecoin.

H₃: The geo-political unrest between Russia and Ukraine has a positive relationship with Ethereum.

H₄: The geo-political unrest between Russia and Ukraine has a positive relationship with Ripple.

H₅: Cryptocurrencies will be a haven to invest during and after the war.

¹ <https://finance.yahoo.com/crypto/>

² <https://www.statista.com/statistics/1312060/us-inflation-rate-federal-reserve-interest-rate-monthly/>

³ <https://finance.yahoo.com/crypto/>

⁴ <https://fred.stlouisfed.org/series/PFOODINDEXM>

Method

The study used the Multiple Regression Model to analyze the impact of the Russian invasion on Ukraine's crypto market, Pearson Correlation to determine correlations, and the Expert Modeler method to forecast future cryptocurrency price trends, all conducted using SPSS-25.

Based on hypothesis 1, this study develops equation (1),

$$BTC_i = \beta_0 + \beta_1 FPI + \beta_2 GPI + \beta_3 USIFR + \beta_4 SMI + \beta_5 GEPI + \beta_6 USIR + \beta_7 CON + \varepsilon_i \quad (1)$$

Where BTC refers to Bitcoin, FPI represents Food Price Index, GPI means Gold Price Index, USIFR indicates US Inflation Rate, SMI deals with Share Market Index, GEPI refers to Global Energy Price Index, and USIR contains the values of US Interest rate. CON refers to constant values and ε_i is error term.

Based on hypothesis 2, this study develops equation (2),

$$ETH_i = \beta_0 + \beta_1 FPI + \beta_2 GPI + \beta_3 USIFR + \beta_4 SMI + \beta_5 GEPI + \beta_6 USIR + \beta_7 CON + \varepsilon_i \quad (2)$$

Where, ETH means Ethereum.

Based on hypothesis 3, this study develops equation (3),

$$LTC_i = \beta_0 + \beta_1 FPI + \beta_2 GPI + \beta_3 USIFR + \beta_4 SMI + \beta_5 GEPI + \beta_6 USIR + \beta_7 CON + \varepsilon_i \quad (3)$$

Where, LTC refers to Litecoin.

Based on hypothesis 4, this study develops equation (4),

$$XRP_i = \beta_0 + \beta_1 FPI + \beta_2 GPI + \beta_3 USIFR + \beta_4 SMI + \beta_5 GEPI + \beta_6 USIR + \beta_7 CON + \varepsilon_i \quad (4)$$

Where, XRP represents Ripple.

The predictive model was evaluated using performance various performance metrics such as Mean Absolute Error (MAE), Mean Absolute Percentage Error (MAPE), Root Mean Square Error (RMSE), and the coefficient of determination (R^2). These metrics provided insights into the average absolute errors between predicted and observed values, percentage accuracy, overall prediction error magnitude, and the proportion of variance in the dependent explained by the model ensuring a robust evaluation framework.

Variables

To better understand how the Russia-Ukraine war has affected cryptocurrency, the study looks at

four dependent variables: Bitcoin (BTC), Ethereum (ETH), Litecoin, and Mad Ripple (XRP). Bitcoin serves as a digital currency for cashless transactions (Vranken 2017), while Litecoin functions as a peer-to-peer internet currency (Hamayel and Owda 2021), Ethereum seeks to create a decentralized applications protocol (Mariana *et al.*, 2021). Previous research has had an impact on the choice of these cryptocurrencies (Theiri *et al.* 2022, Marobhe 2022). The study looks at how the crisis has affected the market dynamics of various cryptocurrencies. This study looks at how the war has affected international economic factors and how those factors have affected crypto as compared to the US dollar. The study examines the complex effects of the war by using the US inflation rate (USIFR), US interest rate (USIR), Global Energy Price Index (GEPI), Food Price Index (FPI), Gold Price Index (GPI), Share Market Index (SMI) as independent variables. Due to the war's disruption of the world's food supply, food costs have increased globally, which may have an impact on crypto (Abay *et al.* 2022). When Currencies devalue, investors look for alternative assets, and both crypto and gold are investigated as hedges against inflation (Conlon *et al.* 2021). Our research discovers how the war affects global energy prices, stock market volatility, and energy costs in the US. The relationship between supply chain disruptions, trade barriers, economic slowdowns, and the potential for interest rate increases.

RESULT AND DISCUSSION

Descriptive Statistics

Table 1 presents descriptive statistics for both dependent and independent variables from January 2018 to January 2023. Over this period, Bitcoin exhibited an average value of 20, 402.18 with a peak and through at 61, 318.96, and 3,457.79 respectively, highlighting its dominance in the global crypto market. Notably, Litecoin and Ripple's highest prices were considerably lower than Bitcoin and Ethereum's lowest values. Amid geopolitical tension between Russia and Ukraine, the dataset reveals a global economic downturn. The US interest and inflation rates, previously stable, experienced significant spikes, rising from 0.00 to 0.09 and 0.05 to 4.40 respectively, indicating the impact of the conflict on the financial landscape.

Table 1. Descriptive Statistics

Variables	Mean	Std. Dev.	Maximum	Minimum
Bitcoin	20,402.18	17,096.06	61,318.96	3,457.79
Ethereum	1,148.04	1,219.49	4,631.48	107.06
Litecoin	96.15	55.19	271.17	30.47
Ripple	0.51	0.31	1.59	0.18
FPI	111.37	20.75	159.70	91.10
GPI	1,605.71	246.84	1,967.60	1,191.50
USIFR	0.04	0.03	0.09	0.00
SMI	3,443.34	674.00	4,766.18	2,506.85
GEPI	170.56	76.49	376.41	55.89
USIR	1.18	1.04	4.40	0.05

Correlation Matrix

The correlation results in Table 2 indicate that the US Interest rate negatively correlates with cryptocurrency (BTC, ETH, LTC, and XRP). Most importantly, the Global Energy Price Index correlates highly with the US Inflation Rate (0.948). Moreover, FPI has a highly positive correlation with USIFR (0.938) followed by SMI and GEPI by 0.862. This positive relation is similar to the findings of Samal et al. (2022).

Table 2. Correlation Matrix

	FPI	GPI	USIFR	SMI	GEPI	USIR	BTC	ETH	LTC	XRP
FPI	1									
GPI	.626**	1								
USIFR	.938**	.403**	1							
SMI	.862**	.777**	.744**	1						
GEPI	.862**	0.225	.948**	.602**	1					
USIR	-0.215	-.617**	0.012	-.472**	0.114	1				
BTC	.719**	.624**	.562**	.883**	.444**	-.594**	1			
ETH	.792**	.561**	.720**	.895**	.598**	-.474**	.921**	1		
LTC	.317*	0.214	0.204	.488**	0.121	-.432**	.744**	.682**	1	
XRP	.389**	0.146	.374**	.491**	.295*	-.348**	.673**	.738**	.855**	1

** . Correlation is significant at the 0.01 level (2-tailed); * . Correlation is significant at the 0.05 level (2-tailed).

For instance, Daulatrao *et al.* (2022); and Angela and Sun, (2020) found a strong relationship between cryptocurrency, especially Ethereum with both Food Price Index, Gold price index. Notably, there is a highly negative relationship between the Gold Price Rate and US Inflation Rate. Finally, The US inflation and US interest rate show relatively lowest correlation with each other.

Regression Analysis

In Table 3, The US Share Market Index has a significant positive effect on the Bitcoin, with a coefficient of 1.038 indicating a one-unit changes corresponds to a similar change in Bitcoin. The Food Price Index (FPI), US Inflation Rate, and Gold Price Index (GPI) all have greater influence on Bitcoin, with p-values <0.01, highlighting their statistically significant impact. Furthermore, with p-values ≤0.05, the USIFR and USIR demonstrate significance. On the other hand, it is discovered that Bitcoin is statistically unaffected by the Global Energy Price Index. Now let's talk about the Ethereum. Its price is positively correlated with the Food Price Index, US Inflation Rate, and Share Market Index, but others factors have negative connections. The statistical significance of Food Price Index, US Inflation Rate, and Share Market Index (SMI) on Ethereum's price is indicated by the p-values, which are all below 0.01%

Table 3. Regression Effect on Bitcoin and Ethereum

Variables	BTC-USD				ETH-USD			
	Coef.	Std. Error	t-value	P-value	Coef.	Std. Error	t-value	P-value
FPI	0.838	169.267	4.078	0.000	0.044	12.897	0.202	0.841
GPI	-0.561	6.137	-6.327	0.000	-0.508	0.468	-5.365	0.000
USIFR	-0.607	132312.02	-2.944	0.005	0.407	10081.111	1.849	0.070
SMI	1.038	2.815	9.353	0.000	0.894	0.214	7.540	0.000
GEPI	-0.175	36.877	-1.062	0.293	-0.212	2.810	-1.203	0.235
USIR	-0.233	1,220.07	-3.131	0.003	-0.337	92.959	-4.249	0.000

Note: BTC-USD and ETH-USD indicate Bitcoin and Ethereum prices; FPI represents Food price Index; GPI refers to Gold Price Index; USIFR indicates United States Inflation Rate; SMI deals with Share Market Index; GEPI denotes Global Energy Price Index; USIR represents United States Interest Rate; P represents Significance at 5% level.

Table 4 shows the key influencers on Litecoin and Ripple values. The Food Price Index and Share Market Index positively correlate with Litecoin, with changes of 1.103 and 1.044, respectively, resulting in a unit increase. Conversely, GPI, USIFR, GEPI, and USIR exhibit a negative correlation, with changes of -1.086, -0.584, -0.628, and -0.289, correspondingly, leading to a unit decrease in Litecoin. The high t-value of 4.319 for Share Market Index indicates a substantial positive impact on Litecoin returns. For Ripple, Gold Price Index, and Share Market Index, along with US Interest Rate, are statistically significant (p-values: 0.000, 0.002, and 0.011). Gold Price Index and US Interest Rate show a negative relationship with XPR, while Share Market Index demonstrates a positive association. These findings offer crucial insights for cryptocurrency market participants and policymakers, highlighting diverse influences on value.

Table 4. Regression Effect on Litecoin and Ripple

Variables	LTC-USD				XRP-USD			
	Coef.	Std. Error	t-value	p-value	Coef.	Std. Error	t-value	p-value
FPI	1.103	1.191	2.464	0.017	0.294	0.007	0.628	0.533
GPI	-1.086	0.043	-5.623	0.000	-1.010	0.000	-5.000	0.000
USIFR	-0.584	930.998	-1.300	0.199	0.443	5.418	0.945	0.349
SMI	1.044	0.020	4.319	0.000	0.833	0.000	3.302	0.002
GEPI	-0.628	0.259	-1.747	0.087	-0.600	0.002	-1.606	0.114
USIR	-0.289	8.585	-1.784	0.080	-0.440	0.050	-2.628	0.011

Note: LTC-USD and XRP-USD indicate Litecoin and Ripple prices; FPI represents the Food price Index; GPI refers to Gold Price Index; USIFR indicates United States Inflation Rate; SMI deals with Share Market Index; GEPI denotes Global Energy Price Index; USIR represents United States Interest Rate; P represents Significance at 5% level.

Table 5 is the complete arrangement of model summary and ANOVA of Cryptocurrencies demonstrating R -value of Bitcoin, Ethereum, Litecoin, and Ripple are 0.95, 0.95, 0.76, and 0.73, respectively. The table also depicts that the R^2 of Bitcoin, Ethereum, Litecoin, and Ripple are 91%, 90%, 57%, and 53%, respectively that means the independent variables can explain the Bitcoin most following Ethereum and Litecoin. Most importantly, the p -value is $0.05 > 0.000$ for all the four variables.

Table 5. Regression Effect of Cryptocurrencies

Crypto	R	R^2	ARS	SEE	RSS_1	RMS_1	RSS_2	RMS_2	F	P
BTC-USD	0.9	0.9	0.9	5419	1542487934	257081322	152708882	29367092.	87.	0.00
	5	1			3	4	8	9	5	0
ETH-USD	0.9	0.9	0.89	412.9	77390117.9	12898353	8865076.8	170482.25	75.	0.00
	5				5		2		7	0
LTC-USD	0.7	0.5	0.52	38.13	101084.53	16847.42	75607.18	1453.98	11.	0.00
	6	7							6	0
XRP-USD	0.7	0.5	0.48	0.22	2.94	0.49	2.56	0.05	9.9	0.00
	3	3							5	0

Note: ARS represents Adjusted R Square; SEE represents Standard Error of the Estimate; RSS represents Regression Sum of Squares; RMS represents Residual Mean Squares; P represents Significance at 5% level.

Robustness Analysis

This study used a foreign exchange dataset (USD/BDT) as the dependent variables, with the inflation rate (INF), interest rate (IRS), foreign reserves (FR), foreign remittance amount (FRA), and money supply (MS) as independent factors. Regression analysis was used to determine the effect of these variables on the USD/BDT exchange rate. The sensitivity study found that Foreign Reserves had a considerable negative influence on the USD/BDT exchange rate ($t = -6.455$). Furthermore, INF, IRS, and MS revealed positive associations, whereas FR and FRA displayed negative relationship. USD/BDT fell by one unit while FR and FRA changed by -0.764 and -0.076, respectively. The Inflation Rates had a greatest beneficial impact on Litecoin, with a t -value of 1.444.

Table 6. Robustness Test

Variables	Coef.	Std. Err.	t-value	p-value
USD/BDT		16.671	6.040	0.000
INF	0.208	0.639	1.444	0.166
IRS	0.099	6.514	1.304	0.209
FR	-0.764	0.000	-6.455	0.000
FRA	-0.076	0.002	-1.526	0.144
MS	0.097	0.000	0.923	0.368

Note: MAE Mean Absolute Error; MAPE refers to Mean Absolute Percentage Error; RMSE Root Mean Squared Error; R^2 deals with coefficient of determination; P represents Significance at 5% level.

Result of Prediction**Table 7.** Prediction Value

Cryptocurrencies	MAE	MAPE	RMSE	R ²	P-value
BTC-USD	2564.325	87.136	4214.924	0.932	0.010
ETH-USD	212.147	558.004	316.072	0.919	0.032
LTC-USD	17.644	89.702	26.602	0.817	0.287
XRP-USD	0.129	221.902	0.260	0.540	0.811

Note: MAE Mean Absolute Error; MAPE refers to Mean Absolute Percentage Error; RMSE Root Mean Squared Error; R² deals with a coefficient of determination; P represents Significance at a 5% level.

The result of the prediction in Table 7 depicts that the p-value of BTC-USD is equal to 0.01% while the ETH-USD is <5%. The RMSE, MAE, and R² of XRP are lower than the other three Cryptocurrencies. These measures provide light on how well models or assessments related to the fluctuations in these Cryptocurrencies' prices perform in terms of accuracy and prediction. Higher R² values denote better predictability. For instance, they show how much of the variance in the dependent variable can be predicted from the independent factors. The statistical significance of the model is frequently evaluated using the p-values.

Jagtap *et al.* (2022) revealed some solutions and ways of mitigating the impact of Russia and Ukraine war on the supply chain such as alternative suppliers of raw materials and supply chain partners to ensure the quality and safety of the food. Adekoya *et al.* (2022) found that oil has a strong connection with prominent assets such as gold, bond, during the war than before it. The result of Bougias *et al.* (2022) informs that the war is the cause of higher asset volatility and lower corporate security prices which is eventually deriving asset values closer to the default region. Liadze *et al.* (2022) argues that the conflict between Russia and Ukraine will leap up the global inflation by around 2% in 2022 and 1% in 2023. The study of Khalfaoui *et al.* (2022) resulted out that co-movements between Cryptocurrencies and war vastly rely on market state and investment horizon. The result also revealed that under the bearish and bull markets, a negative correlation exists between the war and Cryptocurrencies in the short term. As per the result of Theiri *et al.* (2022), Russia–Ukraine war has a significant but temporary impact on the liquidity of Ethereum and Bitcoin.

The result of this study informs that Gold Price and Share Market Price contains statistically significant impact on all the four Cryptocurrencies, while Gold Price have negative relations and Share Market Price maintains a positive relation. Moreover, Food Price Index have a strong

positive relationship with Cryptocurrencies such as Bitcoin, Litecoin, and Ripple, while factors like USIFR, GEPI, USIR have also significant impacts on different currencies out of the studies currencies. Moreover, the forecasted result informs that the prices of these currencies may increase gradually in the upcoming years though they may experience ups and downs.

CONCLUSION

The 2022 conflict between Russia and Ukraine has drawn significant international attention, with major players like the USA, Europe, the United Kingdom, Canada, Israel, and Iran actively involved in supporting the warring nations through weapons and financial aid. The US, EU, and UK have also imposed economic sanctions on Russia, leading to reciprocal trade restrictions. Given that Russia and Ukraine are major contributors to global oil and food supplies, these non-tariff barriers have disrupted the global supply chain, resulting in a humanitarian crisis. To address the issue, digital currency could serve as a potential solution. The financial markets are highly responsive to geopolitical uncertainties, and the ongoing war has heightened global uncertainty, particularly in financial markets. This study highlights the significant impact of changes in the gold price, share markets, and interest rates on cryptocurrency, providing policy implications for policymakers, currency specialists, investors, and academicians, particularly during global crises, and highlighting detrimental factors affecting the crypto movement.

This study offers theoretical insights crucial for policymakers, currency specialists, investors, and scholars. It highlights how changes in gold prices, stock markets, and interest rates significantly impact cryptocurrencies. This understanding aids policymakers in crafting effective regulations and helps investors make informed decisions, especially during global crises. Additionally, the study identifies factors that negatively affect cryptocurrency movements, contributing to academic discourse and enhancing understanding in this field.

This study is conducted on only four cryptocurrencies considering five years of dataset. Shortly, the authors would like to conduct a time series analysis on a big dataset considering more cryptocurrencies. Alongside that, there is still room to conduct an inter-connected study on the impact of COVID-19 and this war on the Crypto market.

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